IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

**In re Application of:**

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| **Application No.:** | 10/584,051 | **Examiner:** | Mark Beauchaine |
| **Filing Date:** | January 9, 2007 | **Art Unit:** | 3653 |
| **First Inventor:** | Jurgen Dietz | **Customer No.:** | 23364 |
| **Attorney No.:** | DIET3004/JJC/PMB | **Confirm. No.:** | 8972 |
| **For:** | SYSTEM CONSISTING OF BANK NOTE PROCESSING MACHINES, BANK NOTE PROCESSING MACHINE AND ASSOCIATED OPERATING METHOD | | |

## APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal brief filed pursuant to the applicant's appeal to the Board of Patent Appeals and Interferences from the final rejection of claims 1-81 in the above identified application.

The filing of this appeal brief is made within three months of the filing of the Notice of Appeal, and is accompanied by a petition and/or appropriate fee to extend the period of reply by one month concurrently filed herewith, and is therefore timely.

## I.    <u>REAL PARTY IN INTEREST</u>

The real party in interest is the assignee of record: GIESECKE & DEVRIENT GMBH (Munchen, Germany).

## II.     RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## III. **STATUS OF CLAIMS**

### A. Status of Claims in Proceeding

Claims 1-81 are currently pending in the above-identified application.

Claims 1-81 are rejected under 35 U.S.C. § 103(a).

### B. Identification of Appealed Claims

The applicant chooses to appeal from the rejection of claims 1-81.

Claims 2-80 depend from claim 1, and their patentability is based on their dependency from claim 1 and their individually recited features.

A copy of all the pending claims as presented in the last entered amendment dated November 30, 2010 is included in the attached Claims Appendix.

## IV.     STATUS OF AMENDMENTS

There are no outstanding amendments to the claims.  The last amendment to the claims was filed on November 30, 2010, and appears to have been entered.  The Office action dated February 16, 2011 is responsive to the communication, including the amendment to the claims, filed on November 30, 2010.

## V.  SUMMARY OF CLAIMED SUBJECT MATTER

For the purposes of appeal, the rejections of claims 1-81 are appealed.

### A.  Independent claim 1

Pending independent claim 1 under appeal requires a system comprising at least one banknote processing machine (Fig. 1; 10, 11), which is connected to a service centre (Fig. 1; 100) by means of a network (Fig. 1; 60) (page 2, lines 20-29).

The system is configured so that data necessary for operation of the at least one banknote processing machine and/or data produced during operation of the at least one banknote processing machine are exchanged between the banknote processing machine and the service centre via the network (page 1, lines 30-32; page 33, lines 25-33).

Log files or statistics about increasing deviations or irregularities occurring during operation of the at least one bank note processing machine are transmitted to the service center over the network (page 12, lines 16-23; page 32, lines 17-20; page 33, lines 25-33; page 35, lines 19-24).

The service center evaluates the log files or statistics and causes repairs to be carried out or wearing parts to be replaced before the at least one bank note processing machine fails (page 2, lines 1-6; page 8, lines 29-31; page 10, line 29 through page 11, line 9; page 12, lines 25-31; page 16, lines 8-16; page 32, lines 20-28; page 33, lines 33-34; page 34, lines 1-2; page 35, lines 19-24).

### B.  Independent claim 81

Pending independent claim 81 under appeal requires a method for operating at least one banknote processing machine as well as a service centre. The method includes the following steps.

1. Providing a system comprising at least one banknote processing machine (Fig. 1; 10, 11), which is connected to a service centre (Fig. 1; 100) by means of a network (Fig. 1; 60) (page 2, lines 20-29).

2. Exchanging data necessary for operation of the at least one banknote processing machine and/or data produced during operation of the at least one banknote processing machine between the at least one banknote processing machine and the service centre via the network, including transmitting log files or statistics about increasing deviations or irregularities occurring during operation of the at least one bank note processing machine (page 1, lines 30-32; page 12, lines 16-23; page 32, lines 17-20; page 33, lines 25-33; page 35, lines 19-24).

Further, the service center evaluates the log files or statistics and causes repairs to be carried out or wearing parts to be replaced before the at least one bank note processing machine fails (page 2, lines 1-6; page 8, lines 29-31; page 10, line 29 through page 11, line 9; page 12, lines 25-31; page 16, lines 8-16; page 32, lines 20-28; page 33, lines 33-34; page 34, lines 1-2; page 35, lines 19-24).

C. Dependent claims

Pending claims 2-80 require the system as discussed above with respect to claim 1 and further include the respective recited features thereof.

## VI.    GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether independent claims 1 and 81 and dependent claims 2-10, 24-29, 31-38, 40-50, 58, 61-66, 68, 69, and 71-80 are rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*).

Whether dependent claims 11-20 and 22 are rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. publication no. 2002/0046061 (*Wright et al.*).

Whether dependent claim 21 is rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 6,508,398 (*Estes*).

Whether dependent claim 23 is rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 7,092,907 (*Kavensky et al.*).

Whether dependent claims 30, 53-57, and 67 are rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 6,430,470 (*Nakajima et al.*).

Whether dependent claim 39 is rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. publication no. 2004/0164141 (*Egami et al.*).

Whether dependent claims 51 and 52 are rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et*

*al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 7,395,241 (*Cook et al.*).

Whether dependent claims 59 and 60 are rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 6,363,164 (*Jones et al.*).

Whether dependent claim 70 is rendered obvious under 35 U.S.C. § 103(a) by the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. publication no. 2008/0243915 (*Shah et al.*).

## VII. ARGUMENT

As discussed in detail below, the basis for the final rejection of claims 1-81 does not satisfy the requirements of *prima facie* obviousness of the subject matter recited in the rejected claims. Therefore, reversal of the rejection of claims 1-81 is respectfully requested.

### A. Claim Rejections

Independent claims 1 and 81 and dependent claims 2-10, 24-29, 31-38, 40-50, 58, 61-66, 68, 69, and 71-80 in this application are rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*).

Dependent claims 11-20 and 22 in this application are rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. publication no. 2002/0046061 (*Wright et al.*).

Dependent claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 6,508,398 (*Estes*).

Dependent claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 7,092,907 (*Kavensky et al.*).

Dependent claims 30, 53-57, and 67 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 6,430,470 (*Nakajima et al.*).

Dependent claim 39 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. publication no. 2004/0164141 (*Egami et al.*).

Dependent claims 51 and 52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 7,395,241 (*Cook et al.*).

Dependent claims 59 and 60 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. patent no. 6,363,164 (*Jones et al.*).

Dependent claim 70 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of U.S. publication no. 2002/0035541 (*Makino et al.*) and U.S. patent no. 5,847,658 (*Irie et al.*) and in further combination with U.S. publication no. 2008/0243915 (*Shah et al.*).

B.      Pertinent Law

In rejecting claims under 35 U.S.C. § 103(a), it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

The showings by the examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). For ease of review, the analysis used to make findings should be made explicit. See *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 U.S.P.Q.2d 1385, 1396 (2007) citing *In re Kahn*, 441, F.3d 977, 988, 78 USPQ2d 1329 (Fed. Cir. 2006) "[R]ejections on obviousness grounds

cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness".

If that burden is met, the burden then shifts to the applicant to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986).

To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. See *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974). It follows that all of the words recited in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). In particular, the question of whether the claimed invention <u>as a whole</u> would have been obvious, and not just whether the differences would have been obvious, must be addressed. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).

The meanings of the claim terms of the pending claims are to be "given their broadest reasonable interpretation consistent with the specification." See *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005).

C. <u>The proposed combination of the *Makino* publication and the *Irie* patent does not amount to a *prima facie* case of obviousness with respect to independent claims 1 and 81</u>

The discussion below is focused on the system recited in independent claim 1. Independent claim 81 recites a method commensurate in scope with the system of independent claim 1. The dependent claims 2-80 stand or fall with independent claim 1, and are therefore not separately discussed.

Reversal of the rejection of claims 1 and 81 is respectfully requested on the basis that the *Makino* publication and the *Irie* patent, whether considered individually

or collectively, fail to disclose or suggest every feature of the system according to claim 1 and every feature of the method of claim 81.

As will be discussed in detail below, the proposed combination of the *Makino* publication and the *Irie* patent fails to disclose at least log files or statistics about *increasing* deviations or irregularities occurring during operation of at least one banknote processing machine being transmitted to a service center over a network, and the service center evaluating the log files or statistics and causing repairs to be carried out or wearing parts to be replaced before the at least one banknote processing machine fails, all as required by pending claims 1 and 81.

Accordingly, claims 1 and 81 are patentable in view of the proposed combination of teachings of the *Makino* publication and the *Irie* patent, since the proposed combination of these references does not constitute a *prima facie* case of obviousness.

The deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent are discussed in detail on pages 18-21 of the response filed November 30, 2010, and are reiterated and summarized below.

As noted in the response filed November 30, 2010 the system of claim 1 and the method of claim 81 provide an active response approach to repair machines or replace wearing parts on an ongoing, continuous basis as the specific need arises. In particular, the service center identifies the specific need by analyzing the log files or statistics about *increasing deviations or irregularities*.

In contrast to the system of claim 1 and the method of claim 81 the *Makino* publication discloses an ATM network for performing a service adapted to each customer, where customer specific display screens and services are provided to individual customers based on stored attribute information for those customers (abstract; at least paragraphs [0008], [0009], [0010], [0016], [0061], and [0064]).

According to the *Makino* publication, an information processing system is in two-way communication with the terminal, and in response to the customer

- 13 -

conducting a transaction at the terminal, transaction-specific customer information (information identifying the customer or the transaction being conducted) is transmitted from the terminal to the information processing system (paragraph [0010]). A Marketing Customer Information File (MCIF) file server stores customer attribute information and offer information (abstract; paragraph [0003]), and the information processing system transmits specific customer offer information to the terminal (paragraph [0010]).

Customer attribute information may include information containing a bank account number (or other account identification) and an address specific to each customer, and information containing a customer's transaction status (paragraph [0011]).

The customer offer information includes information for displaying a screen including (1) an event guide (e.g., promoting a special offer or event of interest to the customer), (2) a visit guide to a window on the administrator side (asking the customer to see a clerk or teller for assistance) or (3) offering a benefit, such as providing a gift or issuing a card for awarding points, as an incentive for using the ATM (paragraph [0012]).

By using the system of the *Makino* publication each branch office can use an ATM to carry out their own effective business strategies, namely, sales, advertising and publicity activities to and on behalf of its customers by issuing a card having printed benefit information adapted to each customer and by providing the service to customers on the basis of customer attribute information maintained within the MCIF server (paragraphs [0027], [0064]).

While the *Makino* publication discloses two-way transmission between an information processing system and a terminal and a page printer 4d for printing systems status reports (e.g., status of the database access at the apparatus 4 or status of transactions/benefits issued at ATMs 3) (paragraph [0067]), the *Makino* publication is completely silent as to transmitting log files or statistics about *increasing deviations or irregularities* occurring during operation of the ATMs to a service center over a

network, and the service center evaluating the log files or statistics and causing repairs to be carried out or wearing parts to be replaced before the ATMs fail. This deficiency of the *Makino* publication is generally acknowledged on page 4 of the Office action dated February 16, 2011.

However, contrary to the assertion on page 3 of the Office action, paragraph [0138] of the *Makino* publication does not disclose that "machines send fault reports/log files to said service center and are displayed via and [sic] input/output device." While true that "A record of a customer classified as having a special bank transaction status is also made by a page printer 4d for later use by bank employees" and "in addition to a monitor display and monitor reports, notification to bank employees by audible alarm (beep) or by synthesized voice may be performed through the synthesized voice output circuit 25 and a speaker 19 at the ATM and similar output devices at other locations in the branch, e.g., near the customer service representative," (*Makino* paragraph [0138]) there is simply no disclosure or suggestion in the *Makino* publication that "machines send fault reports/log files to said service center and are displayed via and [sic] input/output device."

Instead, as discussed above, the *Makino* publication provides a system that allows each branch office to use an ATM to carry out their own effective business strategies, namely, sales, advertising and publicity activities to and on behalf of its customers by issuing a card having printed benefit information adapted to each customer and by providing the service to customers on the basis of customer attribute information maintained within the MCIF server (paragraphs [0027], [0064]).

There is simply no disclosure or suggestion in the *Makino* publication that the ATMs and information processing system transmit log files or statistics about *increasing deviations or irregularities* occurring during operation of the ATMs to a service center over a network, and the service center evaluating the log files or statistics and causing repairs to be carried out or wearing parts to be replaced before the ATMs fail.

- 15 -

The Office action on page 4 turns to the *Irie* patent to cure the above deficiency of the *Makino* publication.

The *Irie* patent discloses a vibration monitor and monitoring method (title) which can correctly distinguish normal from abnormal vibration using automatically selected monitoring features and algorithms (abstract; col. 1, lines 5-12).

In particular, the vibration produced by the vibration system which is being monitored is detected by a sensor and a data processing device is employed to analyze the output of the sensor and to determine whether the vibration produced by the system being monitored is normal or abnormal (col. 2, lines 23-27).

When the system being monitored is vibrating normally, the data processing device is set in learning mode where the vibration waveform from the sensor is sampled over a given period, and this waveform is analyzed for numerous monitoring items which were determined beforehand such that the data associated with each monitoring items are subjected to statistical processing, and some predetermined number of the statistical data associated with the monitoring items are automatically selected which are recognized as a statistically stable data, which monitoring items are chosen to be monitored in operating mode, and an algorithm is generated to determine whether the vibration is normal or abnormal based on the data associated with the monitoring items which have been chosen (col. 2, lines 28-42).

When the learning mode operations have been concluded, the data processing device is operated in operating mode and the vibration waveform from the sensor is sampled as required and analyzed for the monitoring items determined in the learning mode and the data chosen for analysis are processed according to the algorithm which was generated in the learning mode, and a determination is made as to whether the vibration is normal or abnormal (col. 2, lines 43-52).

Thus, as noted in the response filed November 30, 2010, according to disclosure of the *Irie* patent, the waveform representing normal vibration which is input in the learning mode is analyzed for a variety of sampling features where the monitoring features which will be actually used in the operating mode are selected

automatically out of the sampling features according to the results of the analysis (col. 2, lines 53-64).

By way of this process, the upper and lower limits are established for the normal range for each monitoring feature and during the actual monitoring (i.e., in the operating mode), the judgment as to whether the vibration is abnormal is made by determining whether the value for the monitoring feature which is extracted is within the established range of the upper and lower limits (col. 5, lines 18-23).

In other words, in contrast to the system of claim 1 and the method of claim 81 where log files or statistics about *increasing deviations or irregularities* occurring during operation of at least one banknote processing machine is transmitted to a service center over a network, and the service center evaluates the log files or statistics and causing repairs to be carried out or wearing parts to be replaced before the at least one banknote processing machine fails, the *Irie* patent merely discloses monitoring normal vibration, creating an algorithm to define the characteristics (a range of upper and lower limits) of normal vibration, and comparing data from a sensor to the normal vibration algorithm in order to identify abnormal vibration (step 202; col. 5, lines 46-51).

Thus, in contrast to the assertion on pages 8 to 9 of the Office action that "the deviations of vibrations that are compared to a set band width of normal vibrations of Irie constitutes log files of statistics about increasing deviations or irregularities," the *Irie* patent monitors vibrations to determine whether the vibrations are outside the range of upper and lower limits of normal vibration in order to identify abnormal vibration. There is simply no disclosure or suggestion in the *Irie* patent of log files or statistics about *increasing deviations or irregularities* occurring during operation of at least one banknote processing machine being transmitted to a service center over a network, and the service center evaluating the log files or statistics and causing repairs to be carried out or wearing parts to be replaced before the at least one banknote processing machine fails, all as required by the system of claim 1 and the method of claim 81.

Thus, even if the vibration monitoring system of the *Irie* patent were added to the ATM network of the *Makino* patent, the proposed combination still fails to disclose or suggest at least log files or statistics about *increasing deviations or irregularities* occurring during operation of at least one banknote processing machine being transmitted to a service center over a network, and the service center evaluating the log files or statistics and causing repairs to be carried out or wearing parts to be replaced before the at least one banknote processing machine fails, all as required by the system of claim 1 and the method of claim 81.

Accordingly, claims 1 and 81 are patentable in view of the proposed combination of teachings of the *Makino* publication and the *Irie* patent, since the proposed combination of these references does not constitute a case of *prima facie* obviousness, and reversal of this rejection is respectfully requested.

The remaining pending claims 2-80, which depend from claim 1, contain all of the elements of claim 1, as well as their respective recited features. Accordingly, since the proposed combination of the *Makino* publication and the *Irie* patent fails to establish a *prima facie* case of obviousness with respect to claim 1, the proposed combination of the *Makino* publication and the *Irie* patent patents fails to establish a *prima facie* case of obviousness with respect to claims 2-80, and reversal of this rejection is respectfully requested.

D.     <u>The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Wright* publication does not amount to a *prima facie* case of obviousness with respect to dependent claims 11-20 and 22</u>

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claims 11-20 and 22 depend.

In particular, the *Wright* publication fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claims 11-20 and 22 depend.

Therefore, reversal of this rejection is respectfully requested.

E.   The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Estes* patent does not amount to a *prima facie* case of obviousness with respect to dependent claim 21

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claim 21 depends.

In particular, the *Estes* patent fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claim 21 depends.

Therefore, reversal of this rejection is respectfully requested.

F.   The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Kavensky* patent does not amount to a *prima facie* case of obviousness with respect to dependent claim 23

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claim 23 depends.

In particular, the *Kavensky* patent fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claim 23 depends.

Therefore, reversal of this rejection is respectfully requested.

G.      The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Nakajima* patent does not amount to a *prima facie* case of obviousness with respect to dependent claims 30, 53-57, and 67

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claims 30, 53-57, and 67 depend.

In particular, the *Nakajima* patent fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claims 30, 53-57, and 67 depend.

Therefore, reversal of this rejection is respectfully requested.

H.      The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Egami* publication does not amount to a *prima facie* case of obviousness with respect to dependent claim 39

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claim 39 depends.

In particular, the *Egami* publication fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claim 39 depends.

Therefore, reversal of this rejection is respectfully requested.

I.  The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Cook* patent does not amount to a *prima facie* case of obviousness with respect to dependent claims 51 and 52

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claims 51 and 52 depend.

In particular, the *Cook* patent fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claims 51 and 52 depend.

Therefore, reversal of this rejection is respectfully requested.

J.  The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Jones* patent does not amount to a *prima facie* case of obviousness with respect to dependent claims 59 and 60

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claims 59 and 60 depend.

In particular, the *Jones* patent fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claims 59 and 60 depend.

Therefore, reversal of this rejection is respectfully requested.

K.     The proposed combination of the *Makino* publication and the *Irie* patent, and further in combination with the *Shah* publication does not amount to a *prima facie* case of obviousness with respect to dependent claim 70

Reversal of this rejection is respectfully requested on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to claim 1, from which claim 70 depends.

In particular, the *Shah* publication fails to provide for the deficiencies of the proposed combination of the *Makino* publication and the *Irie* patent as discussed above with respect to pending claim 1, from which claim 70 depends.

Therefore, reversal of this rejection is respectfully requested.

## VIII.   __Conclusion__

For the reasons set forth above, claims 1-81 of the pending application define subject matter that is not rendered *prima facie* obvious within the meaning of 35 U.S.C. § 103(a) by the proposed combination of the *Makino* publication and the *Irie* patent or the further combinations of the *Makino* publication and the *Irie* patent and the *Wright* publication, the *Estes* patent, the *Kanevsky* patent, the *Nakajima* patent, the *Egami* publication, the *Cook* patent, the *Jones* patent, or the *Shah* publication.

Reversal of the rejection of claims 1-81 is respectfully requested.

The Fees required by 37 C.F.R. §§ 1.17(a),(b) and 41.20(b)(2) are submitted herewith.  The Office is authorized to charge any additional fees associated with this communication to Deposit Account No. 02-0200.


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## IX.  CLAIMS APPENDIX

1.  System comprising at least one banknote processing machine, which is connected to a service centre by means of a network, wherein the system is configured so that

data necessary for operation of the at least one banknote processing machine and/or data produced during operation of the at least one banknote processing machine are exchanged between the banknote processing machine and the service centre via the network, and wherein log files or statistics about increasing deviations or irregularities occurring during operation of the at least one bank note processing machine are transmitted to the service center over the network, and the service center evaluates the log files or statistics and causes repairs to be carried out or wearing parts to be replaced before the at least one bank note processing machine fails.

2.  The system according to Claim 1, wherein the exchanged data comprise software.

3.  The system according to Claim 1, wherein the exchanged data comprise comparison data and/or presets.

4.  The system according to Claim 1, configured so that the data from the service centre fully or partially replaces and/or enhances the data in the banknote processing machine.

5.  The system according to Claim 1, configured so that the network comprises the Internet.

6.   The system according to Claim 1, wherein the banknote processing machine and the service centre have an interface for connection to the network.

7.   The system according to Claim 1, wherein a number of banknote processing machines are connected to one another, wherein the exchange of data with the service centre takes place via one of the banknote processing machines and/or via the connection of the banknote processing machines.

8.   The system according to Claim 1, wherein one or more banknote processing machines are assigned to an operator that is able to monitor and/or control the banknote processing machines by means of a monitoring unit.

9.   The system according to Claim 1, wherein data from banknote processing machines and/or operators are stored in a data memory of the service centre.

10.   The system according to Claim 1 or 8, wherein the service centre is arranged to evaluate the data of the operators.

11.   The system according to Claim 1, wherein the service centre is connected to departments.

12.   The system according to Claim 11, wherein the departments are arranged to provide data to the service centre.

13.   The system according to Claim 11, wherein the departments are arranged to evaluate data from the service centre.

14.   The system according to Claim 11, wherein each department is arranged to access data of the other departments.

15. The system according to Claim 11, wherein the departments are arranged to request data from the banknote processing machines.

16. The system according to Claim 11, wherein the departments are arranged to provide data to the banknote processing machines.

17. The system according to Claim 11, wherein one of said departments is arranged to provide software for operation of the banknote processing machines.

18. The system according to Claim 11, wherein one of said departments is arranged to provide comparison data for the banknote processing machines.

19. The system according to Claim 11, wherein one of said departments is arranged to provide data and/or software and/or information for repairing and/or servicing the banknote processing machines.

20. The system according to Claim 11, wherein one of said departments is arranged to provide information concerning the banknote processing machines.

21. The system according to Claim 1, including at least one further service centre connected to the network.

22. The system according to Claim 1, wherein at least one service organization and/or service person is connected to the service centre via the network.

23. The system according to Claim 1, wherein the service centre is arranged to provide a trial version of the data for the banknote processing machines, which is usable by the banknote processing machines only for a limited time and/or for a predetermined number of uses.

24. The system according to Claim 1, configured so as to enable operators and/or service organizations and/or banknote processing machines to search for information and/or data from the service centre in a targeted manner.

25. The system according to Claim 1, 8 or 11, wherein the service centre and/or the departments communicate via the network with the operators and/or the service organizations and/or service personnel, in particular by means of graphic signals and/or text signals and/or image signals and/or sound signals.

26. The system according to Claim 8, wherein the exchange of data between the service centre and the banknote processing machines, the service organization, and the operators, uses a standard protocol.

27. The system according to Claim 1, wherein the service centre is arranged to request data from the banknote processing machines.

28. The system according to Claim 1, wherein the service centre is enabled to adjust and control the banknote processing machines.

29. The system according to Claim 1, wherein the banknote processing machines are arranged to request data from the service centre.

30. The system according to Claim 1, wherein the service centre is enabled to charge fees for transmitting data to the banknote processing machines.

31. The system according to Claim 1, wherein the service centre is arranged to provide individual presets for each of the banknote processing machines.

32. The system according to Claim 31, wherein each of the banknote processing machines is arranged to check whether new individual presets are available from the service centre and, if so, to use these new presets.

33. The system according to Claim 1, configured so that adjustments to the respective banknote processing machine are undertaken by the banknote processing machine depending on the location.

34. The system according to Claim 1, wherein the banknote processing machines are arranged to end fault reports to the service centre and/or the service organization and/or the operator.

35. The system according to Claim 1, configured so that the service centre and/or a service organization and/or an operator request fault reports from the at least one banknote processing machine.

36. The system according to Claim 34, wherein any faults that have occurred are displayed by the banknote processing machines by means of an input/output device.

37. The system according to Claim 4, configured so that, when a fault has occurred and/or when a fault report has been received from the banknote processing machines, the service centre generates instructions to remove this fault and provides said instructions to the respective banknote processing machine.

38. The system according to Claim 1, configured so that, for certain operating processes and/or fault clearance operations, the presence of one or more persons is absolutely necessary.

39. The system according to Claim 38, arranged so that the presence of the person or persons is monitored.

40. The system according to Claim 1, configured so that the service centre informs a service organization and/or a service person if certain faults occur on one of the banknote processing machines.

41. The system according to Claim 40, arranged so that the service centre transmits to the service organization and/or to the service person information concerning the type of fault and/or concerning the measures to be carried out and/or concerning replacement parts that are required.

42. The system according to Claim 1, arranged so that the service centre checks whether a banknote processing machine, a service organization and an operator are authorized to exchange data with the service centre.

43. The system according to Claim 1, arranged so that the banknote processing machines, service organizations and operators check whether the service centre is authorized to exchange data with them.

44. The system according to Claim 1, configured so that data from the service centre are loaded by a banknote processing machine if the data from the service centre are of a newer version.

45. The system according to Claim 1, configured so that the exchange of data between the service centre and the banknote processing machines takes place at a specified point of time.

46. The system according to Claim 1, configured so that the exchange of data between the service centre and the banknote processing machines is refused by the banknote processing machines.

47. The system according to Claim 46, configured so that, if the exchange of data is refused by a banknote processing machine, the service centre takes control of the banknote processing machine in order to perform the exchange of data.

48. The system according to Claim 1, wherein the data of the banknote processing machine are backuped prior to an exchange of data into the banknote processing machine and/or the service centre.

49. The system according to Claim 48, configured so that the backuped data of the banknote processing machine can be used again or further if the exchange of data between the service centre and the banknote processing machine fails.

50. The system according to Claim 1, configured so that fundamental parts of the data of the banknote processing machines cannot be altered by an exchange of data.

51. The system according to Claim 1, wherein the banknote processing machines are arranged to check whether the data to be exchanged originate from an authorized source.

52. The system according to Claim 1, wherein the banknote processing machines are arranged to check prior to each use of data whether the data to be used originate from an authorized source.

53. The system according to Claim 1, configured so that data to be exchanged, that reflects a payment to be made, are identified, and exchange with the banknote processing machines is possible only if proof of such payment exists.

54. The system according to Claim 1, configured so that data to be exchanged, that reflects a payment to be made, are identified, and use by the banknote processing machines is possible only if proof of such payment exists.

55. The system according to Claim 53, configured so that the proof of payment is provided by an individual identifier of a banknote processing machine.

56. The system according to Claim 53, configured so that the proof of payment is provided by an identifier for a number of banknote processing machines.

57. The system according to Claim 1, configured so that an amount to be paid for data is set depending on the use of the data by the banknote processing machine.

58. The system according to Claim 1, configured so that data concerning the banknotes processed by the banknote processing machines are transmitted to the service centre.

59. The system according to Claim 58, configured so that comparison data are generated by the service centre from the data concerning the banknotes.

60.  The system according to Claim 59, configured so that comparison data generated by the service centre are exchanged with the banknote processing machines.

61.  The system according to Claim 1, wherein the service centre is arranged to generate an alarm message as a result of exchanging data with one or more of the banknote processing machines, which alarm message is sent to at least one of the banknote processing machines.

62.  The system according to Claim 61, configured so that the alarm message places the banknote processing machines in a special mode of operation.

63.  The system according to Claim 61, configured so that the alarm message contains further data, which are generated by the service centre and/or originate from the banknote processing machine(s) whose data triggered the generation of the alarm message.

64.  The system according to Claim 61, wherein the alarm message is generated when counterfeit or suspect banknotes are found.

65.  The system according to Claim 61, configured so as to enable a service person to set up by means of the banknote processing machines or a computer a connection via the network to the service centre and/or a service organization in order to request assistance and/or replacement parts.

66.  The system according to Claim 65, wherein enabled operations carried out by the service person are communicated via the network to the service centre and/or the service organization.

67. The system according to Claim 66, configured so as to enable the service centre and/or the service organization to charge fees based on the operations communicated.

68. The system according to Claim 1, configured so that the service centre informs an operating person if certain faults occur on one of the banknote processing machines.

69. The system according to Claim 68, configured so that the service centre transmits information concerning the type of fault and/or concerning the measures to be carried out and/or concerning replacement parts that are required to the operating person.

70. The system according to Claim 68, configured so as to enable the service centre to ask the operating person to deliver the necessary replacement parts to the location of the respective banknote processing machine.

71. The system according to Claim 68, configured so that the service centre asks a department to provide data and/or software for clearing the fault on the banknote processing machines.

72. The system according to Claim 71, configured so that the departments provide the data and/or software for clearing the fault on the banknote processing machines by text and/or graphically and/or optically and/or acoustically.

73. The system according to Claim 1, configured so that, when certain faults occur, the service centre clears the faults via the network.

74.  The system according to Claim 1, configured so as to enable operating persons of the banknote processing machines to define specific configuration data.

75.  The system according to Claim 74, wherein the specific configuration data are stored in the banknote processing machine, the service centre and/or a service organization and/or a computer of the operator.

76.  The system according to Claim 75, wherein the stored specific configuration data are usable by an operating person of the banknote processing machines when this operating person operates the banknote processing machine.

77.  Banknote processing machine, wherein the banknote processing machine comprises a system according to Claim 1.

78.  The banknote processing machine according to Claim 77, wherein the banknote processing machine has an interface for connection to the network.

79.  Service centre, comprising a system according to Claim 1.

80.  The service centre according to Claim 79, wherein the service centre has an interface for connection to the network.

81. Method for operating at least one banknote processing machine as well as a service centre, comprising the steps:

providing a system comprising at least one banknote processing machine, which is connected to a service centre by means of a network;

exchanging data necessary for operation of the at least one banknote processing machine and/or data produced during operation of the at least one

banknote processing machine between the at least one banknote processing machine and the service centre via the network, including transmitting log files or statistics about increasing deviations or irregularities occurring during operation of the at least one bank note processing machine;

wherein the service center evaluates the log files or statistics and causes repairs to be carried out or wearing parts to be replaced before the at least one bank note processing machine fails.

# X.  <u>EVIDENCE APPENDIX</u>

There are no copies of evidence entered and relied upon in this appeal
of the pending application.

## XI.  RELATED PROCEEDINGS APPENDIX

There are no related proceedings or decisions rendered by a court or the Board of
Appeals in any proceeding identified in the related appeals and interferences section
in the pending application.